

## Description of *Megalephyphantes pseudocollinus*, n. sp. (Araneae: Linyphiidae: Micronetinae)

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### Summary

A new species of *Megalephyphantes* Wunderlich, 1994 is described. *M. pseudocollinus*, n. sp. is apparently widely distributed in Europe and differs from *M. collinus* (L. Koch, 1872) mainly by the characters of the secondary genital organs. A considerable variation in the shape of the tibial apophysis of both species is described. *Lepthyphantes collinus occidentalis* (Machado, 1949), n. syn. and *M. klingelbachi* (Wunderlich, 1977), n. syn. are placed as junior synonyms of *M. collinus*.

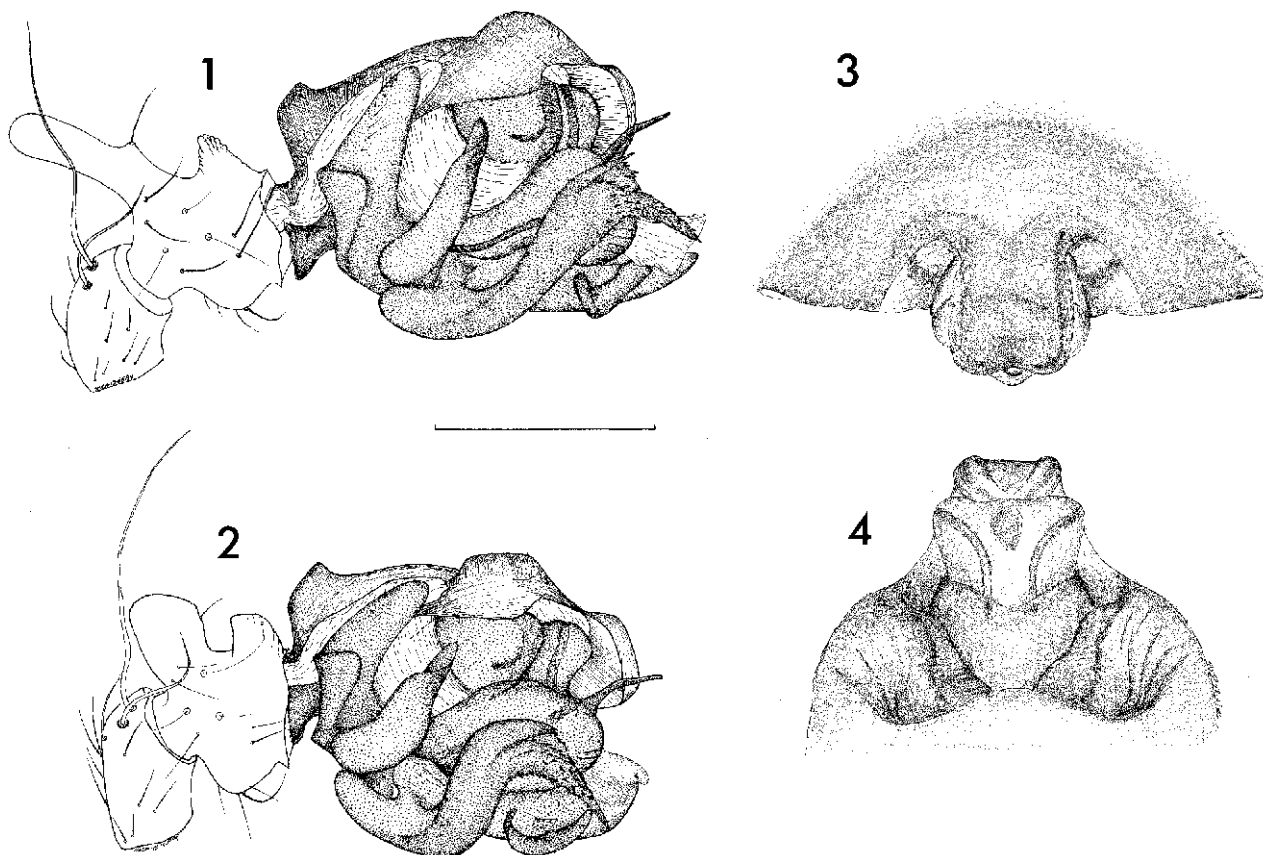
### Introduction

Recently Wunderlich (1994) described a new genus *Megalephyphantes* Wunderlich, 1994 for the *nebulosus*-group of the genus *Lepthyphantes*. In this new genus he included, partly by indication, the following 5 species: *Megalephyphantes collinus* (L. Koch, 1872), *M. klingelbachi* (Wunderlich, 1977), *M. lydiae* Wunderlich, 1994, *M. nebulosoides* (Wunderlich, 1977), and *M. nebulosus* (Sundevall, 1830).

In his earlier paper dealing with the *nebulosus*-group Wunderlich (1977) apparently tried to list all possible members of the group; unfortunately he missed one,

namely *Lepthyphantes collinus occidentalis* Machado, 1949 from Portugal. As Machado was informed by Dr F. Miller (Czechoslovakia) that the palpal tibia of Middle European specimens of *collinus* varies considerably, Machado (1949) decided to describe his Portuguese specimens as a subspecies of that species. Later, Wunderlich (1977) described a new species, *Lepthyphantes klingelbachi* from Greece. Figures of the male palp given both by Machado (1949) and Wunderlich (1977) leave no doubt that *occidentalis* and *klingelbachi* represent the same taxon.

It has now become evident that both *M. collinus* and the new species *M. pseudocollinus* described here have a presumably polymorphic form with a drastically truncated tibial apophysis. For this study specimens with the truncate apophysis were available from the following places: *collinus*: Yugoslavia; Macedonia, 1♂; *pseudocollinus*: Austria; Kanzel, 1♂ and without exact locality, 1♂ among several normal males. Careful comparative studies of the normal and truncated forms of both species have revealed no other significant differences in their secondary genital organs. Also no females which might belong to the truncate form have been found. Accordingly both *Lepthyphantes collinus occidentalis* Machado, 1949 and *Megalephyphantes klingelbachi* (Wunderlich, 1977) are herein considered as junior synonyms of *Megalephyphantes collinus* (L. Koch, 1872). However, the possibility that the truncate forms might represent sibling species cannot be ruled out, as the present material is scanty.



Figs. 1–4: *Megalephyphantes pseudocollinus*, n. sp. (1,3,4=Finland, Turku; 2=Austria, Kanzel). **1** Right male palp with normal tibial apophysis, lateral view; **2** Right male palp with truncated tibial apophysis, lateral view; **3** Epigyne, ventral view; **4** Epigyne, dorsal view. Scale line=0.5 mm.

It is probably owing to the above-mentioned belief that the shape of the male palpal tibia of *collinus* may be variable that *M. pseudocollinus*, apparently a widely distributed species in Europe, has escaped the attention of earlier students who invariably have thought it to be *collinus* (e.g. Chyzer & Kulczynski, 1894: plate II, fig. 31; Palmgren, 1975: fig. 11: 14–16 and determined reference material from several places in Europe).

***Megalephyphantes pseudocollinus*, new species** (Figs. 1–4)

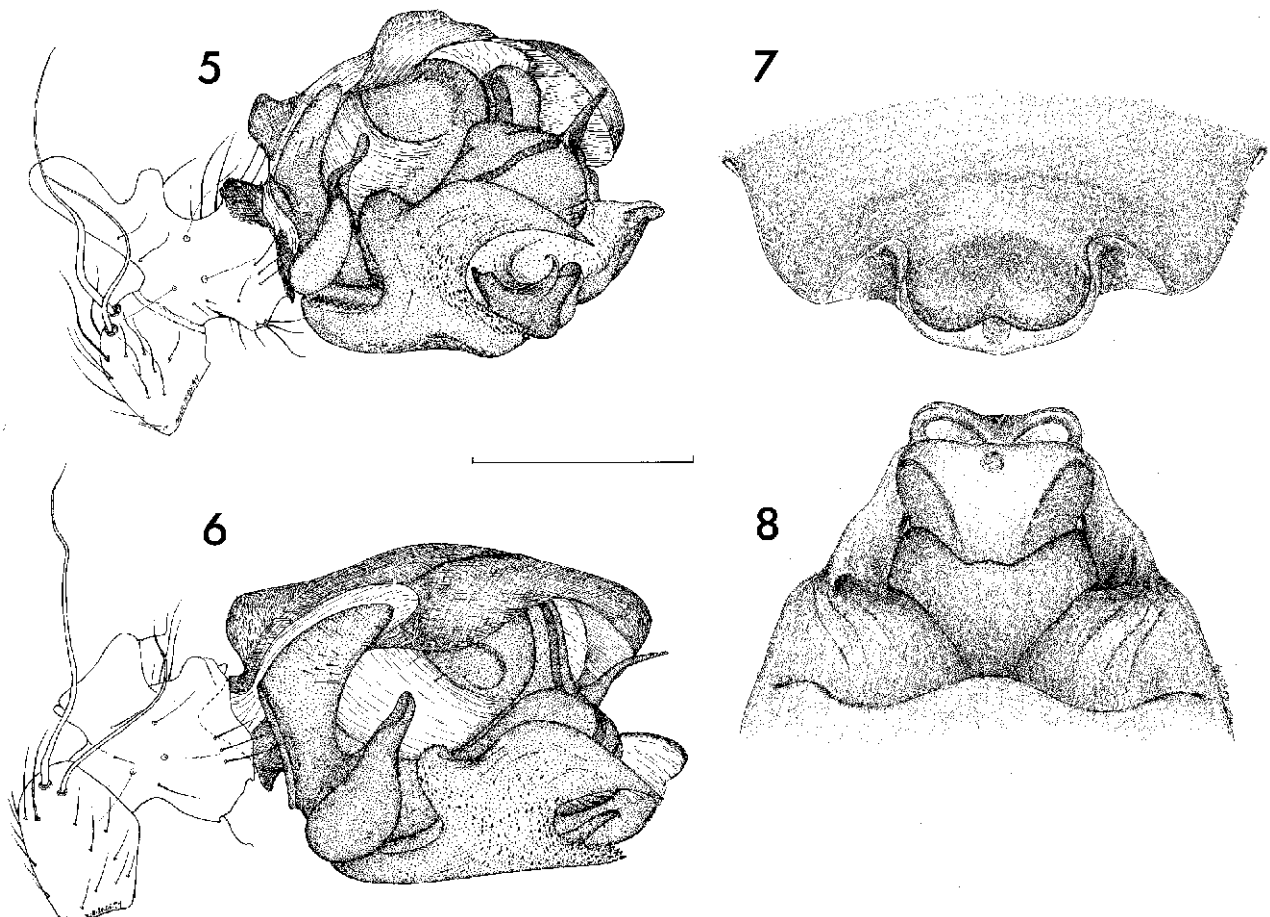
*Lepthyphantes collinus* (nec *Lepthyphantes collinus* L. Koch, 1872); Chyzer & Kulczynski, 1894: 66, pl. II, fig. 31; Bösenberg, 1901: 73, pl. 6, fig. 75 (♀ nec ♂); Miller, 1971: 234, pl. 45, figs. 20, 21; Palmgren, 1975: 54, fig. 11: 14–16.

**Type:** Male holotype from Finland, Turku, Puistomäki, Sotilaantie 7, 16 September 1992 (M. Saaristo), deposited in Zoological Museum, Turku (MZT AMO19A).

**Diagnosis:** The male palp and female epigyne of *M. pseudocollinus* n. sp. are close to those of *M. collinus*. Males of the new species are easily distinguished from those of *collinus* by the roughly S-shaped lamella characteristic; females are recognised by the basal part of the scape being rather long and narrow (length/width = c. 1.2), and by the median plate of the epigyne having a concave posteromedian edge.

**Description:** Total length: ♂=4.58–4.96 mm, ♀=4.81–5.19 mm. Carapace of male longer and broader than that of female; carapace length: ♂=2.06–2.37 mm, ♀=1.91–2.21 mm; carapace length/width: ♂=1.2, ♀=(1.3–) 1.4. Carapace yellow-brown with dark, anteriorly bifurcate median line. Sternum suffused with black. Abdomen greyish with transverse blackish bars and small silvery spots between them. Legs yellowish brown with dark rings in basal, middle and apical parts of femora and tibiae. Male chelicerae somewhat attenuated apically and slightly divergent, with four anterior and four posterior teeth. Chelicerae of female straight and parallel, with three anterior and three posterior teeth which are stronger than those of male. Both sexes with prominent stridulatory ridges on lateral sides of chelicerae; male with c. 18 well-separated files and c. 18 closely spaced ones. Female with fewer (14+14) and shorter files. Legs long, with numerous spines; chaetotaxy on average (additional spines may exist): FeI: 0-1-0-0, FeII–IV: 0-0-0-0, TiI–II: 2-2-2-3, TiIII–IV: 2-2-2-1, MtI–III: 2-1-1-1, MtIV: 2-1-1-0. TmI=0.14.

Male palpal patella with two apicodorsal, tortuous spines; the retrolateral one much shorter and thinner. Tibia normally with a long, basidorsal apophysis bearing a large, basidorsal projection; in some specimens it is much shorter, with a truncated apex. Distal edge of tibia dorsally elevated into a low, blunt-tipped cone. Cymbium with basidorsal and mediodorsal elevations.



Figs. 5–8: *Megalephyphantes collinus* (L. Koch, 1872) (5,7,8=Czech Republic, Borve; 6=Yugoslavia, Macedonia). **5** Right male palp with normal tibial apophysis, lateral view; **6** Right male palp with truncated tibial apophysis, lateral view; **7** Epigyne, ventral view; **8** Epigyne, dorsal view. Scale line=0.5 mm.

Lamella characteristica somewhat S-shaped with a pointed apex bearing numerous denticles.

Epigyne with basal part of scape longer than wide; length/width=*c.* 1.2. Median plate (Van Helsdingen, 1965: 32) V-shaped with straight (concave) posteromedian edge.

*Material examined:* FINLAND: Turku, Puistomäki, Sotilaantie 7, 16 September 1992 (M. Saaristo), male holotype, female allotype (MZT AMO19A and B) and 2♂ 2♀ paratypes (MZT AMO19C); Turku, Vesilinnanmäki, 7 September 1976 (M. Saaristo), 11♂ 22♀ paratypes (MZT AMO16), 22 September 1978 (M. Saaristo), 4♂ 22♀ paratypes (MZT AMO17), and 19 August 1981 (M. Saaristo), 7♂ 15♀ paratypes (MZT AMO18). AUSTRIA: Kanzel, 1♂ 1♀ (P. Horak; det. as *collinus*) and without exact locality (1.2. P.A.N. Warszawa 46/51. U.; det. W. Kulczynski as *collinus*), 11♂ 12♀. HUNGARY: Budapest, 1♂ 2♀ (1.2. P.A.N. Warszawa 46/51. U.; det. W. Kulczynski as *collinus*). UKRAINE: Sumy Area, SW Trostyanets, 21–23 September 1990 (S. Golovatch & A. Vasilev; det. as *collinus*), 1♂ 1♀; Tserkassy distr., Kanevskij reserve, 10–12 September 1982 (K. G. Mikhailov; det. as *collinus*), 3♀. RUSSIA: Perm, in a room of University, 15 September 1975 (S. Esyunin; det. as *collinus*), 1♂ 1♀, and in park, 15 September 1987 (S. Esyunin; det. as *collinus*), 3♀.

### *Megalephyphantes collinus* (L. Koch, 1872) (Figs. 5–8)

*Linyphia collina* L. Koch, 1872: 134, pl. I, figs. 9–12 (descr. ♂♀).

*Lepthyphantes collinus*; Simon, 1884: 275; Bösenberg, 1901: 73, pl. 6, fig. 75 (♂ nec ♀); Wiehle, 1956: 168, figs. 282–285; Heimer & Nentwig, 1991: 180, pl. 76, figs. 488.1, 488.3) (for further references see Bonnet, 1957: 2415).

*Lepthyphantes collinus occidentalis* Machado, 1949: 37, fig. 17 (descr. ♂). **New synonymy.**

*Lepthyphantes klingelbachi* Wunderlich, 1977: 57, figs. 2, 3 (descr. ♂). **New synonymy.**

*Megalephyphantes collinus*; Wunderlich, 1994: 168 (n. comb. by indication).

*Diagnosis:* Males of *M. collinus* are easily distinguished from those of *M. pseudocollinus* by the large, sickle-shaped lamella characteristica; females are recognised by the basal part of the scape being short and wide (length/width=*c.* 0.5), and by the median plate of the epigyne being slightly convex on the posteromedian edge.

*Description:* The species has been well described, e.g. by Wiehle (1956).

*Material examined:* CZECH REPUBLIC: Borve, 16 September 1971 (J. Buchar), 1♂ 1♀; YUGOSLAVIA: Macedonia, N of Tetovo, rock wall, 15 August 1965 (P. T. Lehtinen), 1♂ (MZT AMO15).

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